

## MEETING NOTES

Date: September 30, 2016

Project: Bremerton Gas Works Superfund Site

Attendees:

Bill Ryan (in person) and Erika Hoffman (via phone), EPA

Alison O'Sullivan (via phone), Suquamish Tribe

Susan Moore, CH2M

Kalle Godel and Jim Abrahamson, Cascade Natural Gas Corp./Montana-Dakota Utilities Co.

Carla Brock, Aspect Consulting

Mark Larsen and Nathan Soccorso, Anchor QEA

### Meeting Objectives:

1. Discuss EPA Comments on Cascade's Work Plan (WP) Response-to-Comments (provided on September 15, 2016).
2. Answer questions about EPA comments.
3. Discuss and come to agreement on the structure of the marine investigation of the Site.
4. Document agreements reached.
5. Identify next steps.

### Introductory and General Comments

EPA made introductory and general comments that were generally consistent with those discussed during the upland comment meeting August 10, 2016. The comments included the following key points:

1. The WP should be structured so work flows without interruption for decision making, except for major decisions.  
This comment has been addressed by making the FC responsible for field calls with reporting to EPA. See Appendix B Section 3.1.5.
2. The WP should provide guidance for field staff to make decisions as work progresses and should be detailed to the point where someone who has not been involved in the planning process should be able to implement it.  
This comment has been addressed by making the FC responsible for field calls with reporting to EPA. See Appendix B Section 3.1.5.
3. Eliminate contaminants of potential concern (COPC) Screening Memorandum from scope.  
The COPC Screening Memo has been struck from the WP and SQAPP.

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4. Initial work should include an evaluation for the complete suite of contaminants for all media.

This comment has been addressed. See WP Section 5.5 and Appendix B Section 3.

## **EPA's Review of Marine Investigation Elements and Discussion**

1. EPA's primary comment is about narrowing the scope of marine investigation for the initial phase to stay within/near the ISA. The initial objective should be to define the nature and extent of contamination within the ISA. However, the WP should include a structure that describes next steps including potentially "stepping out" beyond the ISA, if required based on initial sampling results.

This comment has been addressed. See WP Section S2.5.1 and Appendix B Section 3.1.3

2. Regarding the evaluation of sediment transport, EPA's concern is that the WP focuses on chemistry instead of physical transport.

Anchor QEA discussed that there are three elements included in the current WP that inform the evaluation of sediment transport:

- a. Physical sediment testing such as grain size is useful to predict sediment resuspension/transport behavior.
- b. Current velocity, wind wave, and littoral drift action influence transport and recontamination potential.
- c. Add chemistry to grain size physical testing results, and allow for a relatively comprehensive evaluation of sediment transport and recontamination potential.

EPA requested that additional description of the physical sediment transport process evaluation should be included in the WP. Physical sediment sampling is acceptable outside the ISA for the purpose of evaluating sediment transport. However, chemical characterization outside the ISA should not be conducted at this time. It was discussed and agreed upon that sediment could be gathered and archived for future chemical analysis, should the need for such analyses be identified in the future.

This comment has been addressed in WP Section 5.5.1.4.

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3. EPA requested additional information regarding the use of surveys such as the video survey and how the results/data will be used. EPA requested clarification that the video survey is not part of the sediment transport evaluation.
    - a. Anchor QEA noted that based on their experience at other sites, surveys of this type are useful to identify key features and conditions at the outset of the investigation. Examples of potential anthropogenic features are sunken barges, vessels, or subtidal outfalls. Natural features such as eel grass beds or bedrock outcroppings could be identified in video surveys.
    - b. EPA understands the benefits of such a survey. However, these data should not be used to characterize future habitat function.

This comment has been addressed in WP Section 5.5.1.1 and 5.5.1.4.

4. The presentation and/or use of regional data needs to be revised. To that end, EPA provided revised (simplified) text for WP (Section 3.9) that states some data exist and it may or may not be useful to the investigation. The revised text also indicated that Figures 3-27 through 3-32 should be removed from the WP.
    - a. General agreement was reached on the proposed text revision and figure strikes. This comment has been addressed. Section 3.9 has been edited in with the EPA-provided language and the figures have been struck.
  5. EPA stated that the sediment sampling program needs to be more focused on the ISA for chemical characterization. EPA requests clarification in the WP that describes the rationale for the currently proposed subsurface coring plan, and the approach (including details on how step-out core locations and depths would be determined) that will be used for defining additional sediment sampling work, if warranted. The WP also needs to discuss the rationale for selecting the proposed core locations that are located in the nearshore area immediately north of the former MGP location. This discussion should also explain why cores are not proposed elsewhere.
    - a. Core locations were discussed, including potential groundwater flow patterns/directions, marine elevations, and contaminant mobility.
    - b. The approach to sample interval selection was discussed in detail. At each proposed station, there will be a surface result (from the co-located surface grab), and a minimum of two subsurface core intervals will be submitted for analysis:
      - i. No core interval will be greater than 2 feet in length.
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- ii. The core intervals determination will be made in the field depending on observations and lithology.
  - iii. Two core intervals will be immediately submitted for chemical testing at each location:
    - 1. In cores with visual contamination (such as odor, staining, sheen, etc.), a core interval will be collected to characterize the contaminated zone. An underlying visually clean interval will be sectioned in an attempt to find the uncontaminated elevation. The remainder of the core will be sectioned and archived for additional analyses, if required.
    - 2. In cores without visual contamination, two intervals will be processed immediately underlying the surficial sediments starting at approximately roughly 4 inches below mudline. The remainder of the core will be sectioned and archived for additional analyses, if required.
  - c. Additionally, the intent of “step out” core sampling was discussed. At the boundary locations, step out coring will be conducted if visual or other observations of contamination are observed.

These comments have been addressed in the WP Section 5.5.1.5 and Appendix B Section 3.1.5.

- 6. Shellfish surveys should be limited to the ISA. EPA would like an expanded rationale for locations, and description of how data will be used in the future. If conducted, the habitat survey/assessment should not be used to support derivation of consumption rates.
  - a. It was agreed that shellfish surveys could be generally constrained to the ISA. Through discussion it was agreed that seven locations total would be included: five in the intertidal area within the ISA and two at the edges of the intertidal extremes of the ISA (may be technically just outside the ISA).
  - b. These data will be useful to set a baseline for what species are present.

These comments have been addressed in the WP 5.5.1.3 and Appendix B Section 3.1.4.

### **Clarifying questions from Anchor QEA**

- 1. Should a similar approach to uplands chemical characterization be applied to a surface and subsurface sediment sampling program, sequencing Dioxin/Furan (D/F) analysis, if needed,
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based on detections of related chemicals (chlorinated pesticides, PCBs, or pentachlorophenol or related chlorophenols)?

Feedback from EPA is pending.

The EPA provided approach has been integrated throughout the WP 5.5.1 and Appendix B Section 3.

2. As volatiles are rarely present in the sediment matrix, could field screening be used to determine the need for VOC analyses?
  - a. EPA agrees with this approach (confirmation samples for positive VOC screening results), augmented with a minimum of 5 VOC samples collected and analyzed; at least 2 of the five representing “clean” samples (no VOC screening hit). Clean samples should represent sediment of similar physical characteristics to those with positive VOC screening results. [Not discussed, but added for clarity about how EPA interprets implementation: 1) if 7 samples had positive VOC results, then a total of 9 samples would be analyzed (7 positives, 2 non-detects); 2) if 2 samples have positive VOC results, then a total of 5 samples would be analyzed (2 positives, 3 non-detects); 3) if all screened samples are non-detects, 5 of those samples would be analyzed.]

The EPA provided approach has been integrated throughout the WP 5.5.1 and Appendix B Section 3.

## Agreements Reached

1. General comments are understood.
  2. It is agreed to focus marine investigations within the ISA.

This comment has been addressed. No chemical sampling is proposed at this time outside the ISA.
  3. The COPC list for the site is a compilation of all media COPCs. There may be some variation between marine and upland portions (for example, nutrients in groundwater).
  4. The proposed re-write of Section 3.9, including eliminating certain figures, is acceptable.

This comment has been addressed in Section 3.9 and the variation between Site COPCs is explained in the WP and SQAPP.
  5. Sediment Transport:
    - a. Improve discussion of approach.
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- b. Update/expand the discussion for the use of physical data to inform sediment transport evaluation and archived sample mass for chemical testing at a later point, if necessary.
  - c. Sediment transport investigation outside the ISA is acceptable to EPA.

This comment has been addressed in WP Section 5.5.1.4.

- 6. The WP will include a better explanation of the rationale for the video survey and how the results will be used (do not make conclusions about habitat quality; not to be used for sediment transport).

This comment has been addressed in WP Section 5.5.1.1.

7. Core Sampling:

- a. Provide better rationale for locations (characterize all potential directions of travel).
- b. Better describe step out logic (clarify what steps are dependent on observations).

This comment has been addressed with additional information in the WP.

8. Shellfish surveys:

- a. Delete locations generally within the Port Washington Narrows.
- b. Seven locations will be assessed (five adjacent to the site and one at each corner of the ISA).
- c. The assessment will reflect baseline conditions.

This comment has been addressed in WP Section 5.5.1.5.

9. Core analytical and archive program:

- a. Sample screen and archive to the end of core with 2-foot maximum intervals at each location.
- b. Immediate analysis of a minimum of two samples at each location composed of an upper and apparent clean interval.
- c. Analysis of additional archives may be triggered in consultation with EPA, as necessary (field decisions, follow up, or otherwise).

This comment has been addressed in WP Section 5.5.1.5 and Appendix B 3.1.5

10. VOC screening and analysis:

- a. VOC field screen for surface and subsurface sediments
  - i. Triggers sediment analysis if there is a detection.
  - ii. Analyze a minimum of five subsurface sediment samples (minimum of two clean, preferably in similar matrices as where detections occurred).

This comment has been addressed in WP Section 5.5.1 and Appendix B Section 3.

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11. Generally apply the same D/F analysis approach as the upland (chlorinated pesticides, phenols or PCB detections); **further confirmation from EPA is needed.**

This comment has been addressed in WP Section 5.5.1 and Appendix B Section 3.

12. Consult with Suquamish Tribe throughout the process (not just during tribal consumption scenario development)

This comment has been addressed in WP Figure 2-1 and Section 3.1.3.